

## REMARKS

### **1. Summary of the Office Action**

In the office action mailed November 26, 2008, claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent Publication No. 2002/0102968 (Arend) in view of U.S. Patent No. 6,005,889 (Chung). Further, claims 3 and 4 stand rejected based on official notice taken by the Examiner.

### **2. Status of the Claims**

Claims 1-4 are pending. Of these claims, claim 1 is independent and all other claims are dependent.

### **3. Response to Rejections**

As stated above, claims 1 and 2 stand rejected being allegedly obvious over Arend and Chung. However, the combination of Arend and Chung does not logically or reasonably lead to the claimed matter. Thus, Applicant submits that these claims are allowable.

Claim 1 is directed to a CDMA signal generator comprising, an additive white Gaussian noise generator for generating a first broad band noise in an RF receiving band, a first signal generator for generating a first conversion frequency signal, a first mixer for mixing the first broad band noise in the RF receiving band with the first conversion frequency signal to provide a second broad band noise in an IF band, said IF band including a CDMA band and a remaining frequency band that is exclusive of the CDMA band, a SAW filter for attenuating a third broad band noise in the remaining frequency band within the IF band to a predetermined level to provide a substantially CDMA band noise, a second signal generator for generating a second conversion frequency signal, and a second mixer for mixing the substantially CDMA band noise from the SAW filter with the second conversion frequency signal from the second signal

generator to provide an output. This arrangement of elements produces an output signal in a particular CDMA passband, and the output signal can be used as input to test an RF block unit.

The Examiner cited Arend at paragraphs 0021 and 0023 as teaching the first element of claim 1. Additionally, the Examiner asserted that Arend fails to teach the remaining elements of claim 1. Thus, the Examiner turned to Chung to make up for Arend's deficiencies.

Chung is generally directed to a method of detecting a CDMA carrier frequency offset in a pseudo-random noise (PN) modulated signal at a receiver. *Chung, col. 3, lines 13-17 and col. 3, lines 32-36.* Chung notes that an exemplary embodiment is a mobile phone receiver. *Id.* Samples of a received down-converted signal are correlated with a second signal from a local PN generator, and the resulting correlated signal is divided into a number of sub-dwells. *Chung, col. 5, lines 45-50.* The sub-dwells are further processed, and converted, via a Fast Fourier Transform, into L frequency bins. *Chung, col. 5, line 50 – col. 6, line 15.* The magnitude of each of the L bins is calculated, and the maximum of these is compared to a detection threshold. *Chung, col. 6, lines 35-62.* If the maximum does not meet the threshold, a new PN code is chosen and this process repeats. If the maximum does meet the threshold then the frequency associated with the bin containing the maximum is presumed to be the carrier frequency. *Chung, col. 7, lines 1-9.*

Unlike claim 1, Chung teaches *receiver* elements that detect a carrier frequency. Thus, Chung does not teach generating high-frequency band pass output that can be used in testing an RF block unit. Therefore, the Examiner's combination of Arend (generating broadband noise in an RF band) and Chung (detecting a carrier frequency) would not result in a CDMA signal generator that can be used in testing an RF block unit.

However, even if the components of Chung were combined with Arend, the result would not provide all the recited limitations of claim 1. For example, the Examiner cited Chung at Figure 2 and at col. 4, line 58 through col. 5, line 15 as teaching the claim element of a first signal generator for generating a first conversion frequency signal. Then, the Examiner used the same sections of Chung to contend that Chung also teaches the claim element of a second signal generator for generating a second conversion frequency signal. In doing so, the Examiner pointed out the same reference numeral, 214, in both cases.

Claim 1 recites two signal generators. The Examiner cited only one signal generator. Chung fails to teach a second signal generator. Therefore, Applicant submits that Chung does not teach the second signal generator in claim 1.

Furthermore, the Examiner cited Chung at Figure 1 and col. 15, line 47 through col. 16 lines 7 as teaching the claim elements of (1) a first mixer for mixing the first broad band noise in the RF receiving band with the first conversion frequency signal to provide a second broad band noise in an IF band, said IF band including a CDMA band and a remaining frequency band that is exclusive of the CDMA band, and (2) a SAW filter for attenuating a third broad band noise in the remaining frequency band within the IF band to a predetermined level to provide a substantially CDMA band noise. However, the Chung reference only has 10 columns, so clearly the Examiner cannot rely on column 15 and column 16 of Chung to teach these elements.

Nonetheless, Applicant has reviewed Chung and submits that Chung does not teach these elements. Chung is directed to determining a carrier frequency, and in doing so, considers a number of candidate frequencies. However, Chung does not teach an IF band including a CDMA band and a remaining frequency band that is exclusive of the CDMA band.

Additionally, Chung does not teach a SAW filter for attenuating a third broad band noise in the remaining frequency band within the IF band.

Since Chung fails to make up for Arend's deficiencies, and since the combination of Arend and Chung does not logically or reasonably lead to the claimed matter, Applicant submits that claim 1 is allowable. Furthermore, for at least this reason and not conceding any assertion made by the Examiner that is not addressed herein, Applicant submits that claims 2-4 are also allowable for at least the reason that they depend from an allowable claim.

Additionally, claims 3 and 4 teach the CDMA signal generator of claim 1, wherein a passband of the SAW filter is about 1.25 MHz, and about 5 MHz, respectively. The Examiner took official notice that the subject matter of claims 3 and 4 were well-known in the art. To support this position, the Examiner apparently quoted Chung at col. 5, lines 20-24 ("The one-sided bandwidth of the CDMA signal is 0.6144 MHZ, so the digital signal from A/Ds 218 is sampled at the minimum data rate of 1.2288 MHZ to satisfy sampling theory requirements.").

However, just because a signal is sampled at a given sampling frequency does not necessarily lead to the passband bandwidth of the signal always being about the same value. Furthermore, the Examiner did not provide evidence that a passband of a SAW filter of about 5 MHz is well known in the art.

Therefore, Applicant respectfully requests that support for the official notice finding to be provided. See MPEP 2144.03(C) ("If applicant challenges a factual assertion as not properly officially noticed or not properly based upon common knowledge, the examiner must support the finding with adequate evidence.").

#### **4. Conclusion**

Applicant respectfully requests, in light of the arguments herein, allowance of all pending claims. Should the Examiner wish to discuss this case with the undersigned, the Examiner is invited to call the undersigned at (312) 913-3361.

Respectfully submitted,

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